

REMARKS

The specification has been amended to include SEQ ID numbers which were omitted at the time of filing

Attached hereto is a marked version of the changes made to the specification by the current amendment. The attached page is captioned "Version with markings to show changes made."


The undersigned hereby states that the paper copy of the substitute Sequence Listing and the computer readable form copy of the substitute Sequence Listing, submitted in accordance with 37 C.F.R. § 1.825(a) and (b), respectively, are the same and contain no new matter. Accordingly, entry of the substitute Sequence Listing into the above-captioned application is respectfully requested.

In the unlikely event that the patent office determines that extensions and/or other relief is required, applicant petition for any required relief including extensions of time and authorize the assistant commissioner to charge the cost of such petitions and/or fees due to our deposit account no. 03-1952 under order no. 532212001500. The assistant commissioner is not authorized to charge the cost of the issue fee to the deposit account.

Respectfully submitted,

April 24, 2002

By:



Peng Chen
Registration No. 43,543

Morrison & Foerster LLP
3811 Valley Centre Drive
Suite 500
San Diego, California 92130-2332
Telephone: (858) 720-5117
Facsimile: (858) 720-5125

VERSION WITH MARKINGS TO SHOW CHANGES MADE**In the Specification:**

The paragraph, beginning at page 1, line 26, has been amended as follows:

The complete form of human PTH, (hPTH), sometimes referred to in the art as hPTH but referred to in the present invention either as whole PTH or CAP, is a unique 84 amino acid peptide (SEQ ID NO:3), as is shown in FIGURE 1. Researchers have found that this peptide has an anabolic effect on bone that involves a domain for protein kinase C activation (amino acid residues 28 to 34) as well as a domain for adenylate cyclase activation (amino acid residues 1 to 7). However, various catabolic forms of clipped or fragmented PTH peptides are also found in circulation, most likely formed by intraglandular or peripheral metabolism. For example, hPTH can be cleaved between amino acids 34 and 35 to produce a (1-34) PTH N-terminal fragment (SEQ ID NO:6) and a (35-84) PTH C-terminal fragment (SEQ ID NO:7). Likewise, clipping can occur between either amino acids 36 and 37 or 37 and 38. Recently, a large PTH fragment referred to as "non-(1-84) PTH" has been disclosed which is clipped closer to the N-terminal end of PTH. (see R. LePage et alia, *"A non-(1-84) circulating parathyroid hormone (PTH) fragment interferes significantly with intact PTH commercial assay measurements in uremic samples"* Clin Chem (1998); 44:805-810).

The paragraph, beginning at page 3, line 12, has been amended as follows:

PTH immunoassays have varied over the years. One early approach is a double antibody precipitation immunoassay found in U.S. 4,369,138 to Arnold W. Lindall *et alia*. A first antibody has a high affinity for a (65-84) PTH fragment (SEQ ID NO:8). A radioactive labeled (65-85) PTH peptide is added to the sample with the first antibody to compete for the endogenous unlabeled peptide. A second antibody is added which binds to any first antibody and radioactive labeled PTH fragment complex, thereby forming a precipitate. Both precipitate and supernatant can be measured for radioactive activity, and endogenous PTH levels can be calculated there from.